

IN THE CLAIMS

The following is a complete listing of the claims, and replaces all earlier versions and listings.

1. (Currently Amended) An image processing apparatus connected to at least an external controller via an external bus, comprising:

first image processing means for processing input image data;
image storage means for storing image data processed by said first image processing means;
second image processing means for processing image data read from said image storage means;
output control means for outputting image data processed by said second first image processing means via the external bus;
preservation means for preserving the result of processing on the image data by said second first processing means, ~~in correspondence with a predetermined amount of image data output by said output control means;~~ and
pseudo master means for starting and controlling a preservation operation by said preservation means, ~~in correspondence with the predetermined amount of image data output by said output control means.~~

2. (Original) The image processing apparatus according to claim 1, wherein one or both of said output control means and said pseudo master means start output processing on subsequent image data stored in said image storage means, in

correspondence with the predetermined amount of the image data output by said output control means.

3. (Original) The image processing apparatus according to claim 1, wherein said first image processing means generates and processes plural items of image data from one item of the input image data,

wherein said preservation means preserves the result of image data processing corresponding to each of the plural items of image data generated and processed from one item of the input image data.

4. (Currently Amended) The image processing apparatus according to claim 3, wherein the predetermined amount of output of said image data by said output control means corresponds to transfer of image data of one of the plural items of image data generated and processed from one item of the input image data; said pseudo master means controls the preservation operation by said preservation means, in correspondence with the image data output by said output control means of one of the plural items of image data generated and processed from one item of the input image data; processed by said first image processing means, for one frame, to the external bus.

5. (Original) The image processing apparatus according to claim 3, wherein said output control means issues an interrupt request to the external controller when transfer of all the plural items of image data generated and processed from one item of the input image data to the external bus is completed,

wherein the external controller performs reading of the result of

processing preserved in said preservation means and setting for image processing on the next frame, in correspondence with the interrupt request.

6. (Original) The image processing apparatus according to claim 1, further comprising arbitration means for arbitration between an access request from the external controller and the preservation operation of the result of processing by said pseudo master means and said preservation means.

7. (Original) The image processing apparatus according to claim 1, wherein said first image processing means includes first processing means for generating first image data and second processing means for generating second image data.

8. (Original) The image processing apparatus according to claim 7, wherein the first image data has a resolution higher than that of the second image data.

9. (Original) The image processing apparatus according to claim 1, wherein said first image processing means performs filter processing on the image data, while the second image processing means performs compression coding processing on the image data.

10. (Original) The image processing apparatus according to claim 9, wherein said compression coding processing is coding processing in conformity with JPEG or JPEG 2000 coding method.

11. (Currently Amended) An image processing method in an image processing apparatus connected to at least an external controller via an external bus, comprising:

a first image processing step of processing input image data;

an image storage step of storing image data processed [[at]] in said first image processing step into an image memory;

a second image processing step of processing image data read from the image memory;

an output control step of outputting image data processed [[at]] in said second first image processing step via the external bus;

a preservation step of preserving the result of processing on the image data processed [[at]] in said second first processing step, ~~in correspondence with a predetermined amount of image data output at said output control step; and~~

a pseudo master step of starting and controlling a preservation operation [[at]] in said preservation step, in correspondence with ~~the predetermined amount of image data output [[at]] in said output control step.~~

12. (Currently Amended) The image processing method according to claim 11, wherein [[at]] in one or both of said output control step and said pseudo master step, output processing on subsequent image data stored [[at]] in said image storage step is started, in correspondence with the predetermined amount of image data output [[at]] in said output control step.

13. (Currently Amended) The image processing method according to

claim 11, wherein at said first image processing step, plural items of image data are internally generated and processed from one item of the input image data,

wherein [[at]] in said preservation step, the result of image data processing, corresponding to each of the plural items of image data generated and processed from one item of the input image data, is preserved.

14. (Currently Amended) The image processing method according to claim 13, wherein ~~the predetermined amount of the image data output at said output control step corresponds to transfer of image data of one of the plural items of image data generated and processed from one item of the input image data; in said pseudo master step, the preservation operation in said preservation step is controlled, in correspondence with the image data output in said output control step of one of the plural items of image data generated and processed from one item of the input image data; processed in said first image processing step,~~ for one frame, to the external bus.

15. (Currently Original) The image processing method according to claim 13, wherein [[at]] in said output control step, an interrupt request is issued to the external controller, when transfer of all the plural items of image data generated and processed from one item of the input image data to the external bus is completed, wherein the external controller performs reading of the result of processing preserved [[at]] in said preservation step and setting for image processing on the next frame, in correspondence with the interrupt request.

16. (Currently Amended) The image processing method according to

claim 11, further comprising an arbitration step of performing arbitration between an access request from the external controller and said preservation operation of the result of processing [[at]] in said pseudo master step and said preservation step.

17. (Original) A storage medium holding computer-readable program code for executing the image processing method in claim 11.

18. (Original) A program for executing the image processing method in claim 11 by a computer.